

REMARKS

Upon entry of this Response, claims 1-2, 9, 12-13, 15, 17, and 19 will be amended and claims 10-11, 16, and 18 will be canceled. Thus, claims 1-9, 12-15, 17, and 19-20 will remain pending. No new matter has been added, and Applicants reserve the right to pursue the subject matter of the originally filed claims in this and other applications.

The pending claims stand rejected under 35 USC 102 and/or 103 as being unpatentable over US Patent Publication No. 2003/0079059 ("Tsai"). Reconsideration and further examination are respectfully requested in view of the changes to the claims and the following remarks..

To facilitate discussion of the claims, a brief description of some embodiments is provided.

Brief Description of Some Embodiments

Referring to FIG. 3 of the present application, a data source (which would be located at the top of FIG. 3) may want to provide data to a data requestor (which would be located at the bottom of FIG. 3). According to some embodiments, the data source may begin to store a set of data into the first buffer 330 (*e.g.*, from right to left in the buffer). When at least a subset of the data has been stored in the first buffer 330, it may be copied to a second buffer 340 (while other data in the first buffer 330 is not copied). After the entire set of data has been stored in the first buffer 330 a "data ready signal" may be generated.

The data source may then begin to overwrite the subset of data in the first buffer 330 (again from right to left), such as with a subsequent set of data to be transferred to the data requestor. This is because the data that is being overwritten has already been copied to the second buffer 340.

In response to the "data ready signal," the data requestor may receive: (i) the subset of data from the second buffer 340 (while that subset of data is being over-written in the first buffer 330) and (ii) the remaining data from the first buffer 330.

Claims 1-8 and 19-20

Thus, claim 1 recites “a first buffer to store a set of data,” “a second buffer to store a subset of the data” (and that “the subset ... is copied between the first and second buffers [while] remaining data in the set is not copied”), and that “the set of data is to be provided for a data requestor from at least one of the first and second buffers while the subset of the data is being overwritten.” Claims 2-8 and 19-20 contain identical or similar limitations.

Tsai does not disclose or suggest such features. For example, in FIG. 2 of Tsai, data is written into a ping buffer 13 while data is read from a pong buffer 14. The roles are then reversed (*i.e.*, data is read from the ping buffer 13 while data is written to the pong buffer 14). In this case, no data is “copied between the first and second buffers” as recited in these claims.

Moreover, in FIG. 4 data is written into a ping buffer 23, copied to a pong buffer 25, and then output (while new data overwrites the ping buffer 23). In this case, however, it is not possible for a “subset of data” to be copied between buffers (while the remaining data is not) and yet still output the whole “set of data.” That is, data is provided to only the ping buffer 23 and output from only the pong buffer 25, and therefore all data that will be output from the system must, at some point, be copied between the buffers 23, 25.

Nor is such a feature obvious in view this reference. By copying only a subset of the data, some embodiments of the present invention may let a small buffer be used and therefore improve the area and gate count used to implement a buffer system may be reduced (specification, page 5, second paragraph). Applicants respectfully request allowance of claims 1-8 and 19-20.

Claims 9, 12-14, and 17

Applicants note that claim 9 might be associated with, for example, an embodiment such as the one illustrated in FIG. 3 of the present application. Claim 9 recites “storing in a first buffer a set of data” and “copying a subset of the data from the first buffer to a second buffer while other data in the set is not copied.” As described above, Tsai discloses an embodiment where no data is copied between buffers (FIG. 2 of Tsai) and another embodiment where all data is copied

between buffers (FIG. 4 of Tsai). Thus, Tsai does not disclose or suggest "copying a subset of the data ... while other data in the set is not copied" as recited in these claims. Applicants respectfully request allowance of claims 9, 122-14, and 17.

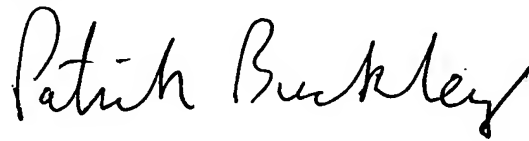
Claim 15

Applicants note that claim 15 might be associated with, for example, an embodiment such as the one illustrated in FIG. 8 of the present application. Claim 15 recites "storing in a first buffer a subset of data," "storing remaining data in a first section of a second buffer," and "copying the subset of data from the first buffer to a second section of the second buffer without copying the remaining data." In FIG. 2 of Tsai, no data is copied between the buffers. With respect to FIG. 4 of Tsai, all data must eventually be copied between the buffers.

CONCLUSION

Accordingly, Applicants respectfully request allowance of the pending claims. If any issues remain, or if the Examiner has any further suggestions for expediting allowance of the present application, the Examiner is kindly invited to contact the undersigned via telephone at (203) 972-0191.

Respectfully submitted,



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Date

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